How to Protect Electricals and Electronics from Corrosion in One Easy Step

Cortec® Corporation has been making corrosion protection of electricals and electronics easy for decades. Cortec’s versatile collection of VpCI® emitters can eliminate the strain of rust claims on sensitive items being shipped overseas. It also reduces the frequency of maintenance, repair, or failure on electrical components that control the nerve centers of ships, manufacturing plants, or offshore platforms. VpCI® emitters are especially important for protecting against corrosion in harsh conditions such as those in wastewater treatment plants or marine environments. Protection is achieved by the unique action of Cortec’s Vapor phase Corrosion Inhibitor Technology.
The Science Behind Cortec® VpCI® Emitters

Cortec® VpCI® emitters contain corrosion inhibitors with a strong tendency to vaporize from their source material (inside a pouch, a piece of foam, or a small plastic cup) and distribute themselves evenly throughout an enclosed atmosphere (e.g., an electrical box or a shipping package). When these vapors reach equilibrium, they are attracted to metal surfaces where they form a protective molecular layer. This film is microscopic and invisible to the naked eye, but it is enough to interfere with normal electrochemical reactions that normally cause metal to rust in the presence of oxygen, moisture, and chlorides. The VpCI® layer does not, however, impair electrical, optical, or mechanical surface properties.

Protection as Easy as “One, Five, Eleven”

VpCI® protection is extremely easy to apply simply by inserting the appropriate size and number of emitting devices into an enclosure based on volume. The numbers in the names of the following emitters represent the amount of space they protect.

- **Cor-Pak® 1-MUL Pouches**: a flat pouch that protects up to 1 cubic foot (28 L)
- **VpCI®-101 Device**: a small self-stick foam piece that protects up to 1 cubic foot (28 L)
- **VpCI®-105**: a self-stick emitter cup device that protects up to 5 cubic feet (0.14 m³)
- **VpCI®-111**: a self-stick emitter cup device that protects up to 11 cubic feet (0.31 m³)

VpCI® emitters provide approximately two years of corrosion protection when placed in non-vented electrical boxes that are opened only briefly for periodic maintenance.
Flexible Solutions for Countless Applications

VpCI® emitters are highly versatile and can be used for corrosion protection in many different applications:

- Aerospace electrical controls
- Electric motors
- Switching equipment
- Fuse boxes
- Electrical wireways
- Telecomm equipment and remote electronics devices

The smallest Cor-Pak® 1-MUL Pouches have been used to protect spare fuses stored in VpCI® bags at an oil and gas facility in Alaska. VpCI®-101, VpCI®-105, and VpCI®-111 have been used to preserve control boxes in a copper mine for two years of layup. VpCI® emitters played an important role in minimizing electrical/electronic failures in deep tunnel pumping stations where hydrogen sulfide and high humidity were leading to corrosion and excessive downtime. Emitters have also been used in military and marine applications, on ships and on offshore platforms, and in field irrigation equipment to protect controller contacts. These strategies are readily adapted for effective protection during different phases of shipment, layup, or operation.

Take the Simple Step to Guard Against Corrosion

Virtually everyone has electricals and instrumentation, but not everyone has the protection easily achieved with VpCI® emitters. VpCI® emitters guard against rust claims, excessive downtime, and frequent repair costs by mitigating corrosion. Contact Cortec® today to select the right emitter for your application: [https://www.cortecpackaging.com/contact-us/](https://www.cortecpackaging.com/contact-us/).

Need a High-Resolution Photo? Visit: [www.cortecadvertising.com](http://www.cortecadvertising.com)